

# MPM-04V Series

## Compact, Board Mount 4W Ultra-Wide Input Range AC/DC Power Supplies



### Key Features:

- 4W Output Power
- Universal 90-305 VAC Input
- Miniature Size
- EN 60950 Approved (UL)
- Meets IEC Safety Class II
- Single and Dual Outputs
- Meets EN 55022 B
- >350 kHour MTBF



### MicroPower Direct

292 Page Street  
Suite D  
Stoughton, MA 02072  
USA

T: (781) 344-8226  
F: (781) 344-8481  
E: sales@micropowerdirect.com  
W: www.micropowerdirect.com



### Electrical Specifications

Specifications typical @ +25°C, 230 VAC input voltage & rated output current, unless otherwise noted. Specifications subject to change without notice.

Input						
Parameter	Conditions	Min.	Typ.	Max.	Units	
Input Voltage Range		90		305	VAC	
		120		430	VDC	
Input Frequency		47		440	Hz	
Input Current	See Model Selection Guide					
Inrush Current	115 VAC		15.0		A Pk	
	230 VAC		25.0			
EMI	Meets CISPR Pub. 22/FCC Class B					
EMC	Meets EN 55024					
Output						
Parameter	Conditions	Min.	Typ.	Max.	Units	
Output Voltage	See Model Selection Guide					
Output Current	See Model Selection Guide					
Output Voltage Accuracy	See Note 2		±2.0		%	
Line Regulation, See Note 3	3.3V Output, V <sub>IN</sub> = Min to Max		±0.5		%	
	5V to 24V Output, V <sub>IN</sub> = Min to Max		±0.2		%	
Load Regulation, Single Output	3.3V output, I <sub>o</sub> = 0% to 100%		±1.5		%	
Load Regulation, Single Output	5V to 24V output, I <sub>o</sub> = 0% to 100%		±0.5		%	
Load Regulation, Dual Output	V <sub>out 1</sub> , I <sub>o</sub> = 10% to 100%		±0.5		%	
Load Regulation, Dual Output	V <sub>out 2</sub> , I <sub>o</sub> = 10% to 100%		±5.0		%	
Ripple/Noise (20 MHz)	Single 3.3V & 5V Outputs		150.0		mVp-p	
	All Other Models		100.0			
Hold-Up Time	115 VAC		15		mSec	
Temperature Coefficient			±0.02		%/°C	
Over Voltage Protection	Zener Diode Clamp		120		% of V <sub>o</sub>	
Short Circuit Protection, See Note 4	Continuous (Autorecovery)					
Overload Protection		105	120		% of I <sub>o</sub>	
General						
Parameter	Conditions	Min.	Typ.	Max.	Units	
Isolation Voltage	Input to Output	3,000			VAC	
Isolation Resistance	500 VDC	100			MΩ	
EMC Compliance	Conducted	EN 55022 Level B				
	Electrostatic Discharge (ESD)	EN 61000-4-2 Level B				
	RF Field Susceptibility	EN 61000-4-3				
	Electrical Fast Transients/Bursts On Mains	EN 61000-4-4 Level 3 2 kV				
	Surge	EN 61000-4-5 Level 3 1kV/2 kV				
Switching Frequency			132		kHz	
Environmental						
Parameter	Conditions	Min.	Typ.	Max.	Units	
Operating Temperature Range	Ambient	-40	+25	+70	°C	
Storage Temperature Range		-40		+125	°C	
Cooling	Free Air Convection (See Derating Curve)					
Humidity	RH, Non-condensing			95	%	
Physical						
Case Size	1.44 x 1.06 x 0.67 Inches (36.5 x 27.0 x 17.1 mm)					
Case Material	Non-Conductive Plastic & Fiberglass (UL94-V0)					
Weight	0.91 Oz (26g)					
Reliability Specifications						
Parameter	Conditions	Min.	Typ.	Max.	Units	
MTBF	MIL HDBK 217F, 25°C, Gnd Benign	350			kHours	
Safety Standards	UL 60950, EN 60950					
Safety Approvals	UL, cUL; File No. E245422					
Safety Class	IEC 61140 Class II					

www.micropowerdirect.com

